

# CALIFORNIA ECONOMIC BASE REPORT: NORTHERN CALIFORNIA REGION



# **Prepared for the**



**DECEMBER 2006** 

# **California Economic Strategy Panel**

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### **PREFACE**

The bipartisan California Economic Strategy Panel (Panel) was established in 1993 to develop an overall economic vision and strategy to guide public policy. The Panel engages in an objective and collaborative biennial planning process that examines economic regions, industry clusters, and cross-regional economic issues. The 15-member Panel is comprised of eight appointees by the Governor, two appointees each by the California Senate President Pro-Tempore and the California Assembly Speaker and one appointee each by the Senate and Assembly Minority Floor Leaders. The Secretary of the California Labor & Workforce Development Agency serves as the Panel Chair.

The California Regional Economies Project is currently the lead research mechanism for the Panel to identify economic policy issues. The project provides the state's economic and workforce development systems with data and information about changing regional economies and labor markets. The information provides a new resource in economic and workforce development planning and a bridge connecting economic and workforce policies and programs at the state and regional levels.

Since 1996, the Panel recognized the rapidly changing nature of the California economy and its economic regions. In order to understand the state's economy and the changes taking place within industry sectors and industry clusters, it is important to recognize the regional nature of the economy and to analyze the economic base by region. To do this, the statewide and nine regional economic base reports analyze the patterns of employment, business establishments, wages, population, unemployment rate and other key factors.

This report presents a statewide overview and comparative analysis of the nine regions from 2001 to 2004. Also, in-depth economic base reports for each region are available. The previous economic base reports examined the 1990-2002 period, and were the first economic base reports for the regional economies as they are defined today. The Panel's initial work, from 1994-1996, resulted in identification of six regions and provided regional economic base analyses; however, those regions had been significantly redefined by 1998, making comparisons to the early analyses impractical.

The source of the data used for these reports is the official employment and wage information reported by employers to the State. While a variety of other sources provide similar information, they may not capture the official numbers that employers report, or may not include input from all employers. This data source is the most comprehensive and accurate source of information direct from employers, and is therefore the best to use for public policymaking, planning and program administration.

The Panel has taken steps to institutionalize the analysis and preparation of these economic base reports within State government so that this analysis may be provided on a yearly basis. Also, steps have been taken to leverage the body of knowledge that now exists around the study of industry clusters, gained through the California Regional Economies Project.

First, a non-confidential version of the data series, the *California Regional Economies Employment* Series, has been made available online by the California Employment Development Department's Labor Market Information Division so that regional organizations may access this data at the county level. Second, a step-by-step guide, the *Clusters of Opportunity User Guide*, is available online so that regional organizations can conduct industry cluster studies and work with business and industry to test and apply the findings. With this information, regional organizations may conduct their own economic base and industry cluster analyses down to the county level, and they may combine county data to create their own sub-regional study areas. Training workshops have been held to teach the methodology and processes outlined in the *Clusters of Opportunity User Guide* to representatives from local and regional organizations including Local Workforce Investment Boards, economic development organizations, and community colleges.

The statewide and regional economic base reports, the *Clusters of Opportunity User Guide* and other studies are available on the Panel's website at http://www.labor.ca.gov/panel/.

The California Regional Economies Employment Series is available online at http://www.labormarketinfo.edd.ca.gov/cgi/databrowsing/?PageID=173.

The California Regional Economies Project is sponsored by the California Labor & Workforce Development Agency, California Employment Development Department, and California Workforce Investment Board.

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### INTRODUCTION

The California Regional Economies Project provides data and information about changing regional economies and labor markets. The information provides a new resource in economic and workforce development planning, and a bridge connecting economic and workforce policies and programs at the state and regional levels.

In order to understand the state's economy and the changes taking place within industry sectors and industry clusters, it is important to recognize the regional nature of the economy and to analyze the economic base by region. To do this, the statewide and nine regional economic base reports analyze the patterns of employment, business establishments, wages, population, unemployment rate and other key factors.

This report presents an in-depth analysis of the Northern Sacramento Valley Region's economic base from 2001 to 2004. The previous economic base report examined the 1990-2002 period. The statewide and eight other regional economic base reports are also available at http://www.labor.ca.gov/panel/.

### **Data Sources**

The Quarterly Census of Employment and Wages (QCEW) data is the source for the private industry data, which uses the North American Industry Classification System (NAICS) coding system. The Current Employment Statistics (CES) data is the source for all levels of government employment data. The CES data does not offer wage information, so the government wage information in this report was taken from the federal Bureau of Labor Statistics (BLS) QCEW non-confidential data available online. A more detailed explanation of the data sources is available in the statewide report.

### **Industry Clusters versus Sectors**

An industry sector is a group of firms that are doing the same type of work, making the same type of products, or providing the same types of services. Examples include manufacturing, construction, retail trade and health care.

An industry cluster is a group of interdependent industry sectors characterized by competing firms and buyer-supplier relationships, as well as shared labor pools and other specialized infrastructure. They are also geographically concentrated. When identifying "industry clusters of opportunity," the Project adds additional considerations that focus on employment opportunities for regional residents.

### **Definition of the Economic Base Industries**

Economists divide industries into two groups; export-oriented and local-serving (also referred to as population-driven). Export-oriented industries are industries that sell a large portion of their goods and services to people and businesses in markets outside of the region, creating capital (bringing capital into) the region. Local-serving industries are

industries that sell their goods and services to people and businesses in markets within the region. These industries do not typically create new capital for the region, but recirculate it within the region.

In the previous economic base reports completed in 2004, the two principal researchers who provided the analyses did not agree on a common definition of an area's economic base. One favored the traditional approach, while the researcher analyzing the rural regions felt that there were key local-serving industries that were critical to these regions and should be included in the economic base.

For the current economic base reports, we have chosen to include some industries in our definition of the economic base that are not traditionally included. We do this in part due to the transformations taking place within the industries or regions, and also in recognition of the importance of industries that provide significant employment opportunities for the region, including some high-wage/high-demand sectors and clusters that would otherwise not be included.

While the traditional discussion of an economic base is still the one most used by economists, we feel the other perspective better fits the nature of the California Regional Economies Project, which constantly views the economy in new ways and from new perspectives in order to see transformations taking place. We acknowledge that this use of the term, "economic base," conflicts with the standard definition, and that we are choosing to redefine it for the purpose of these reports. We respect that some will disagree with our use of the term in this way; however, this should not detract from the important economic information presented in the reports. The current reports begin to address the differences in the definition of the regions' economic base industries, which began with the first economic base reports. We plan to revisit this issue again in the future.

A detailed discussion of the definition of the economic base and the differences between the previous and current reports is available in the statewide report.

Definitions by NAICS code for all of the industry sectors and clusters in the statewide overview and regional economic base reports may be found in Appendix A.

### THE NORTHERN CALIFORNIA REGION



The Northern California Region includes eleven counties — Del Norte, Humboldt, Lake, Lassen, Mendocino, Modoc, Nevada, Plumas, Sierra, Siskiyou and Trinity. This region accounts for just over 1% of California's jobs and 1.5% of its population. The region's unemployment rate in 2005 was 6.9%. This region had the third highest unemployment rate of the nine regions, above the state average of 5.4%.

From 1990 to 2003, the Northern California Region experienced job growth of 15.2%, as reported in the first economic base report. Since the recent recession, job growth has fluctuated in the region, with an overall loss of less than one percent (0.2%) reported for the 2001-2004 period. During this time, Government industry jobs actually grew by just over 2%, while private industry jobs decreased by just over 1%.

Characteristics of	Characteristics of the Northern California Region								
(Numbers are in thousands, except for dollar amounts)									
	No. Calif. as % of CA								
Population (2006)	546.7	37,172	1.5%						
Labor Force (2005)	183,678	17,695,568	1%						
Unemployment Rate (2005)	6.9%	5.4%	128%						
Manufacturing Jobs* (2004)	11.6	1,507.8	1%						
Per Capita Income (2004)	\$ 27,097	\$ 35,219	77%						
Average Wage (2004)	\$ 26,420	\$ 43,724	60%						

Source: Jobs, Labor Force, Unemployment Rate and Average Wage – California Employment Development Department, Labor Market Information Division; Population and Per Capita Income – U.S. Bureau of Economic Analysis

\* Manufacturing Jobs reported here are traditional production jobs (NAICS 31-33).

Entrepreneurship plays a critical role in regional economic development in rural California. It has been the key to increasing the number of establishments in rural regions, as opposed to established businesses moving or expanding into the region, according to the study, *Patterns of Entrepreneurship in Rural California*. The study also showed that the total number of establishments grew by about 18% between 1990 and 2003 across all of the rural regions. (Growth for the Northern California Region alone was not cited in the study.)

During the period 2001-2004, the Northern California Region reported a net increase of over 900 private industry establishments (up almost 5%), from 18,900 to 19,800 total establishments. The industry sectors or sub-sectors reporting the greatest increase in number of establishments were Private Households, Residential Building Construction, and Specialty Trade Contractors.

### THE ECONOMIC BASE

The economic base is traditionally considered to be made up of export-oriented industries in the study area - industries that sell a large portion of their goods or services to people and businesses in markets outside of the area. For the purpose of this report, we have chosen to include industries in our definition of the economic base that are not traditionally included. We acknowledge that our definition of the economic base differs from standard practice. We do this in part due to the transformations taking place within the industries or region, and also in recognition of the importance of industries that provide significant employment opportunities for the region, including some high-wage/high-demand industries that would otherwise not be included.

Economic base reports also typically look only at industry sectors; however, this analysis will also include industry clusters, where studies by the California Regional Economies Project have defined clusters that provide significant employment for the region<sup>1</sup>.

The criteria for selecting the components of the economic base include the top job providers in 2004, those industries with a high growth rate from 2001 – 2004, and the top job generators from 1990 to 2002, as identified in the previous economic base report. In those cases where industry clusters are examined beginning with the 2001-2004 period, direct comparisons may not be possible with the findings from the first economic base report.

Based on these criteria, the industry clusters and industries included in the Northern California Region's economic base for this analysis are the following<sup>2</sup>, listed by NAICS code:

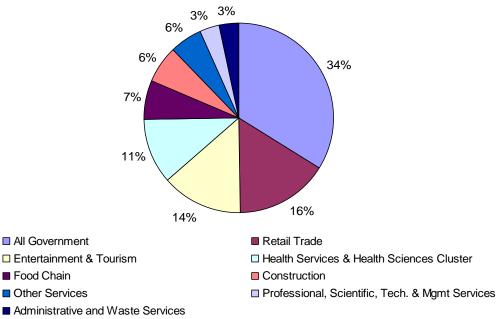
The Food Chain
Construction
Retail Trade
Professional, Scientific, Technical & Management Services
Administrative, Support & Waste Services
Health Services & Health Sciences
Entertainment & Tourism
Other Services
All Government

The total jobs reported by the economic base industries and clusters represent 80% of the region's total jobs. From 2001-2004, economic base employment grew by about 1,000 jobs, or less than 1%.

<sup>1</sup> Industry Clusters of Opportunity are defined by the California Regional Economies Project as geographically-concentrated, and interdependent industry sectors characterized by competing firms and buyer-supplier relationships, as well as shared labor pools and other specialized infrastructure. In addition to export-oriented sectors, they also include population-driven sectors as well as sectors that offer occupations with career potential.

<sup>&</sup>lt;sup>2</sup> See Appendix A for a complete listing of all sub-sectors included in the economic base industries and industry clusters.





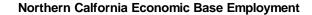
(Industries are listed in order as they appear in the chart, reading left to right across columns.)

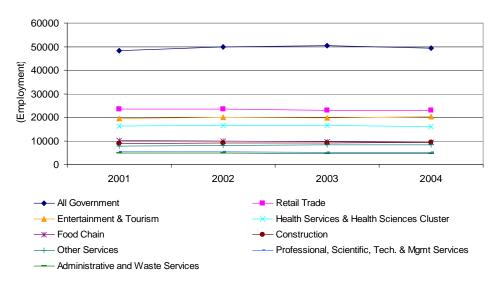
All Government continues to provide the most jobs for the region, with almost 49,300 jobs in 2004. This represents 34% of the economic base jobs, and over 28% of the region's total jobs. Retail Trade was second, with 23,000 jobs; almost 16% of the economic base, and 13% of all jobs in the region.

The Entertainment & Tourism industry was the third largest component of the economic base, with 20,300 jobs in 2004; almost 14% of the region's economic base jobs. This was followed by Health Services & Health Sciences, reporting 16,100 jobs, or 11% of the region's economic base. The Food Chain cluster provided almost 9,500 jobs and the Construction industry provided about 9,400 jobs, or 6.5% of the economic base.

The remaining industries in the economic base are Other Services (8,200 jobs); Professional, Scientific, Technical & Management Services (5,000 jobs); and, Administrative & Waste Services (4,700 jobs). (Other Services does not include public administration jobs, and represents a variety of services, such as automotive repair and maintenance, religious and civic organizations, personal care services and professional organizations.)

The following graph shows employment for the economic base industries and clusters from 2001-2004:

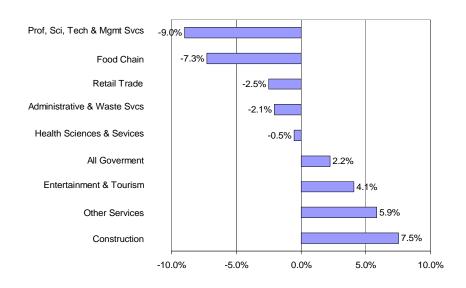




In addition to size, another important measure is job growth. Following the recession of the early '90's, all of the economic base industries in the Northern California Region reported job growth from 1990-2000. Most of the industries still reported growth during and after the recent recession, 2000-2002; however, three industries did report job losses. These were Management of Companies & Enterprises, Administrative & Waste Services, and Arts, Entertainment & Recreation.

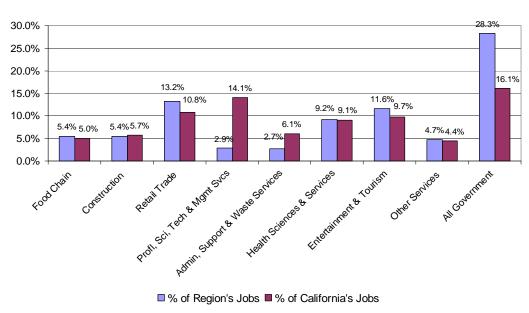
From 2001-2004, those industries and clusters in the economic base that reported job growth include Construction (up 7.5%), Other Services (up almost 6%), Entertainment & Tourism (up 4%), and All Government (up just over 2%). The remaining industries and clusters reported job losses for the period. The graph below shows job growth (percentage) from 2001-2004 for the economic base industries and clusters:

Economic Base Job Growth 2001-2004



Another factor to consider is the concentration of an industry within a region – the percentage of the region's jobs that the industry provides – and also how this compares to the concentration within the state or nation. The following graph compares the concentration of the leading employment sectors in the region to the statewide concentration.





The average annual wage<sup>3</sup> for all industries in the Northern California Region is \$26,420. This region has the second lowest overall average wage of all nine regions, with the lowest reported by the Northern California Region. Within the region's economic base, the average annual wage by industry and cluster ranges from a high of \$34,193 for Professional, Scientific, Technical & Management Services jobs, to a low of \$12,163 for Entertainment & Tourism jobs. (Wages for the All Government industry are not available.)

Although the Professional, Scientific, Technical & Management Services industry reports the highest average wage, it also only provides 3% of the jobs in the region's economic base. On the other hand, Retail Trade and Entertainment & Tourism reported lower averages wages and provide a combined 30% of the economic base jobs.

Health Sciences & Services reported the greatest (percentage) increase in average wages from 2001 to 2004, rising almost 16%, from \$28,429 in 2001 to \$32,873 in 2004; the industry provides 11% of the region's economic base jobs. The industry or cluster reporting the least change was Administrative, Support & Waste Services, only increasing by just over 3% during this period; the industry provides 3% of the region's economic base jobs.

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<sup>&</sup>lt;sup>3</sup> The average annual wage is calculated by dividing the total wages by the total employment (both figures are reported by the employers); the wages and employment data reported do not distinguish between part and full time hours or overtime hours worked. This statistic provides good information for making comparison and tracking trends; however, it may not be the best resource available for employers or researchers and service providers to use when determining a competitive or typical pay scale for employees in a particular industry and/or region.

The following table provides the average annual wage for each industry and cluster in the region's economic base, and compares these to the statewide averages. It also shows the percentage of the economic base jobs that each industry/cluster provides, to point out the percentage of jobs in the higher and lower paying industries/clusters.

Average Annual Wages 2004	Statewide	No. California Region	% of Region's Economic Base Jobs
ALL INDUSTRIES	\$ 43,724	\$ 26,420	
Food Chain	31,939	24,547	7%
Construction	43,707	33,309	6%
Retail Trade	28,546	22,427	16%
Prof, Scientific, Tech. & Mgmt Services	71,904	34,193	3%
Admin & Waste Services	28,923	23,946	3%
Health Sciences & Services	49,205	32,873	11%
Entertainment & Tourism (Rural)*	20,802	12,163	14%
Other Services	23,542	17,885	6%
All Government	47,835	35,440	34%

<sup>\*</sup> The definition of the Entertainment & Tourism industry differs from urban to rural regions, for the purpose of this report. For urban regions, Entertainment & Tourism combines Arts, Entertainment & Recreation with Accommodation and Motion Picture & Sound Recording Industries; it does not include Food Services. For rural regions, Entertainment & Tourism combines Accommodation & Food Services with Arts, Entertainment & Recreation; it does not include Motion Picture & Sound Recording Industries. For the statewide analysis, the Entertainment & Tourism industry combines Accommodation & Food Services with Arts, Entertainment & Recreation, and also includes Motion Picture & Sound Recording Industries.

The remainder of this report discusses each economic base industry and cluster in further detail.

<sup>\*\*</sup> Government average annual wages include the wages for a broad spectrum of jobs, including elected officials and executive branch, judicial, defense, law enforcement, firefighting, education and other public administration jobs. The source for this data is the Bureau of Labor Statistics (BLS) online QCEW data, as the CES data used for the government employment numbers does not include wage information. Wage data for some counties was suppressed.

### THE FOOD CHAIN

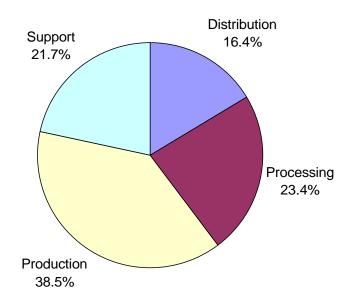
The Food Chain cluster has been defined by the California Regional Economies Project as including not only Production sectors, but also Support, Processing and Distribution sectors. The previous economic base report only looked at agriculture as a part of the Resource Based industries. This report will instead look at the Food Chain cluster.

The Food Chain cluster provides 6.5% of the economic base jobs for the Northern California Region, and over 5% of all jobs in the region.

From 1990-2002, the Agriculture, Forestry, Fishing & Hunting industry employment decreased by about 700 jobs, reporting approximately 8,000 jobs in 2002.

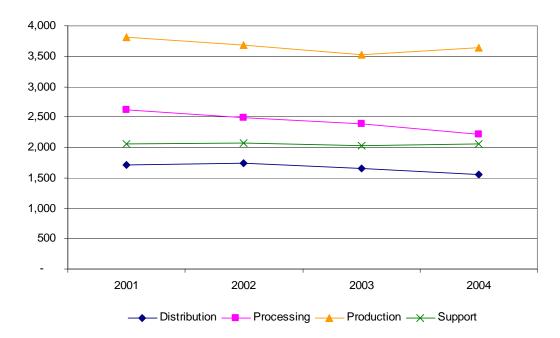
For the 2001-2004 period, the Food Chain cluster experienced net job losses of over 700 jobs, or over 7%, dropping from almost 10,200 jobs in 2001 to almost 9,500 jobs in 2004. In 2004, Support represented almost 22% of the cluster; Production represented 38.5%; Processing represented over 23%; and, Distribution represented over 16%.

### The Northern California Region Food Chain



From 2001-2004, three components of the cluster reported job losses, while the Support component reported no net growth. Production lost almost 200 jobs (down 4.5%), Processing lost 400 jobs (down 15.5%), and Distribution lost less than 200 jobs (down 9.5%).

### **Food Chain Jobs**

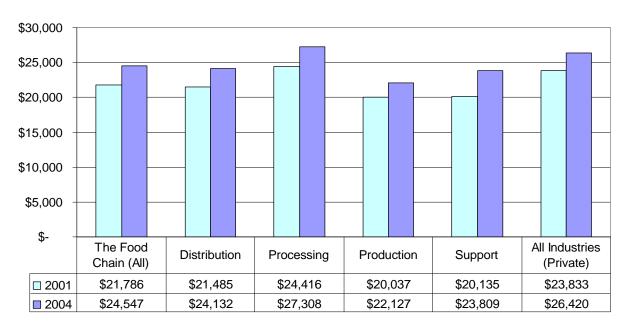


Within Support, the largest sub-sector is Support Activities for Crop Production, followed by Veterinary Activities. Within Production, the largest sub-sector by far is Fruit & Tree Nut Farming, followed by Cattle Ranching & Farming. Within Processing, the largest sub-sector is Wineries, followed by Seafood Product Preparation & Packaging and Dairy Product Manufacturing. Within Distribution, the largest sub-sector is Grocery & Related Product Wholesalers, followed by Specialty Food Stores.

The Food Chain cluster's average annual wage for the region in 2004 was \$24,547. Within the cluster, for Support jobs the average annual wage was \$23,809; for Production jobs the average was \$22,127; for Processing jobs the average was \$27,308; and, for Distribution jobs the average was \$24,132. The Food Chain cluster provides 7% of the region's economic base jobs.

The following chart shows the changes from 2001 to 2004 and compares the industry's average with the region's overall average wage (all industries).

**The Food Chain Wages** 



The following table provides information on employment by major component:

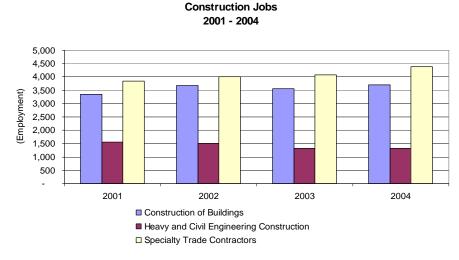
Northern California Region				
	Food Chain			
	(Thousands of Jobs)			
	2001	2002	2003	2004
Support	2.1	2.1	2.0	2.1
Production	3.8	3.7	3.5	3.6
Processing	2.6	2.5	2.4	2.2
Distribution	1.7	1.7	1.6	1.5

Source: California Employment Development Department

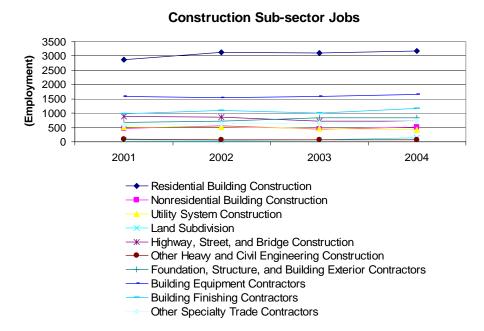
### **CONSTRUCTION**

The Construction industry provided 6.5% of the economic base jobs for the Northern California Region in 2004, and over 5% of all jobs in the region.

During the period of 1990 – 2002, Construction grew by 1,500 jobs – an increase of 21%. Construction employment actually decreased from 1990 to 1995, during and after the recession of the early '90s, then grew from 1995 to 2002. Coming out of the recent recession, Construction jobs declined in 2003, only to rise again in 2004. For the period of 2001 to 2004, this resulted in a net job gain of 7.5% - almost 700 jobs.

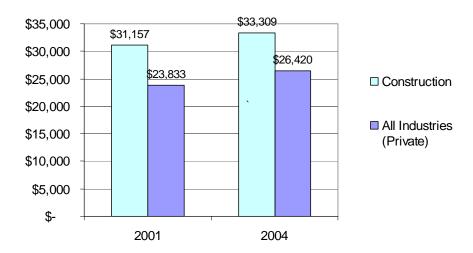


Within the Construction industry, the sectors providing the greatest number of jobs are Specialty Trade Contractors (led by Building Equipment Contractors) and Construction of Buildings (led by Residential Building Construction). The Residential Building Construction subsector provided the most jobs within the industry – almost 3,200 jobs in 2004.



The industry's average annual wage for the region in 2004 was \$33,309, up almost 7% from the 2001 average of \$31,157. Construction provides 6% of the region's economic base jobs. The following chart shows the changes from 2001 to 2004 and compares the industry's average with the region's overall average wage (all industries).





The following table provides information on employment in the Construction industry:

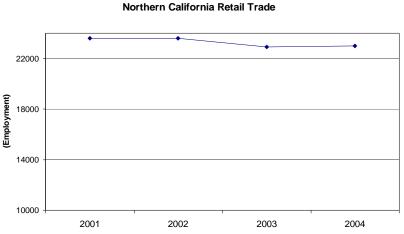
Northern California					
Construction					
(Thousands of Jobs)					
	1990	1994	2000	2002	2004
Residential Building Construction	2.5	1.9	2.4	3.0	3.2
Nonresidential Building Construction	0.5	0.4	0.4	0.6	0.5
Utility System Construction	0.2	0.2	0.4	0.5	0.4
Land Subdivision	0.1	0.1	0.1	0.1	0.1
Highway, Street & Bridge Construction	0.5	0.6	0.8	0.8	0.7
Other Heavy & Civil Engineering Construction	0.6	0.1	0.2	0.1	0.1
Foundation, Structure, & Exterior Contractors	0.4	0.5	0.8	0.7	0.9
Building Equipment Contractors	1.1	1.2	1.6	1.5	1.7
Building Finishing Contractors	0.8	0.6	0.8	1.1	1.2
Other Specialty Trade Contractors	0.5	0.4	0.6	0.6	0.7

Source: California Employment Development Department. Data for 1990 – 2002 are presented from the previous economic base report for 1990, 1994, 2000 and 2002. Data for 2004 are presented from the current analysis of 2001-2004 data. The data source has changed since the earlier report.

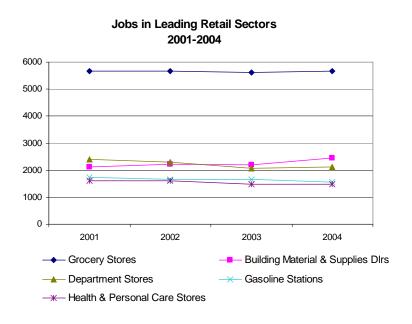
### **RETAIL TRADE**

Retail Trade provides the Northern California Region with almost 16% of the jobs in the economic base. The industry provides over 13% of the region's total jobs.

Employment in Retail Trade grew by over 21% from 1990 – 2002, as reported in the previous economic base report. During the period of 2001-2004, Retail Trade employment began to decline, dropping slightly from 23,600 in 2001 to 22,900 in 2003; then, the industry reported a very slight increase in 2004 of less than 100 jobs. Overall, the industry lost 2.5% in employment from 2001 to 2004.



Within the Retail Trade industry, the largest sectors were Food & Beverage Stores (led by Grocery Stores), followed by Building Material & Garden Equipment (led by Building Material & Supplies Dealers), and General Merchandise Stores (led by Department Stores). Of these three larger sectors, only Building Material & Garden Equipment reported job growth from 2001 to 2004, adding over 300 jobs.



The industry's average annual wage for the region in 2004 was \$22,427, up over 9% from the 2001 average of \$20,543. Retail Trade provides 16% of the region's economic base jobs. The following chart graphs the changes from 2001 to 2004 and compares the industry's average with the region's overall average wage (all industries).



The following table provides detailed data for the Retail Trade industry sectors and sub-sectors:

Northern California					
Retail Trade					
(Thousands of Jobs)					
	1990	1994	2000	2002	2004
Grocery Stores	5.0	5.3	5.5	5.8	5.7
Building Material and Supplies Dealers	2.3	2.1	2.1	2.2	2.4
Department Stores	1.7	2.6	2.6	2.3	2.1
Gasoline Stations	1.6	1.8	1.8	1.7	1.5
Health and Personal Care Stores	1.1	1.4	1.6	1.6	1.5
Automobile Dealers	1.1	1.3	1.2	1.1	1.1
Automotive Parts, Accessories, and Tire Stores	0.9	0.9	1.3	1.3	1.1
Other General Merchandise Stores	1.3	0.7	0.7	0.6	8.0
Office Supplies, Stationery, and Gift Stores	0.5	0.6	0.7	0.7	0.7
Book, Periodical, and Music Stores	0.3	0.4	0.3	0.7	0.7
Sporting Goods, Hobby, and Musical Instrument Stores	0.5	0.7	0.6	0.7	0.7
Clothing Stores	8.0	0.7	0.6	0.7	0.7
Specialty Food Stores	0.4	0.5	0.6	0.7	0.6
Other Miscellaneous Store Retailers	0.5	0.4	0.5	0.5	0.4
Direct Selling Establishments	0.5	0.5	0.5	0.5	0.4
Electronics and Appliance Stores	0.5	0.6	0.4	0.4	0.4
Home Furnishings Stores	0.3	0.3	0.4	0.3	0.3
Furniture Stores	0.3	0.2	0.3	0.3	0.3
Lawn and Garden Equipment and Supplies Stores	0.2	0.3	0.3	0.3	0.3
Electronic Shopping and Mail-Order Houses	0.2	0.4	0.4	0.3	0.3
Other Motor Vehicle Dealers	0.1	0.1	0.2	0.2	0.3

Used Merchandise Stores	0.1	0.1	0.2	0.2	0.2
Jewelry, Luggage, and Leather Goods Stores	0.2	0.1	0.1	0.1	0.1
Shoe Stores	0.2	0.1	0.1	0.1	0.1
Florists	0.2	0.2	0.1	0.2	0.1
Beer, Wine, and Liquor Stores	0.3	0.2	0.1	0.1	0.1
Vending Machine Operators*	0.0	0.0	0.0	0.0	0.0

Source: California Employment Development Department
Data for 1990 – 2002 are presented from the previous economic base report.

\* Employment was reported in 2004; however, jobs were less than 50, which rounded to 0.0 thousands.

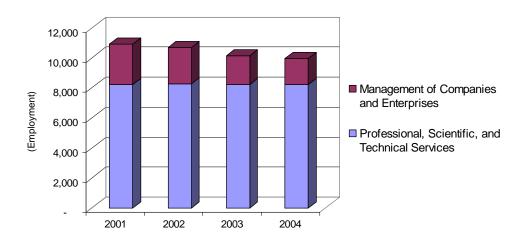
### PROFESSIONAL, SCIENTIFIC, TECHNICAL & MANAGEMENT SERVICES

Professional, Scientific, Technical & Management Services combines two sectors; Professional, Scientific & Technical Services and Management of Companies & Enterprises. In the previous economic base reports for rural regions, including the Northern California Region, these were discussed separately; however, they were combined for the previous reports for urban areas.

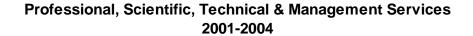
The Management of Companies and Enterprises sector is a newer category introduced by the NAICS coding system. There appears to have been significant changes in the use of the NAICS codes within this sector since its introduction, where companies originally using this classification may no longer identify themselves in the sector. In some or many cases, they may be identifying themselves within the Professional, Scientific & Technical Services sector.

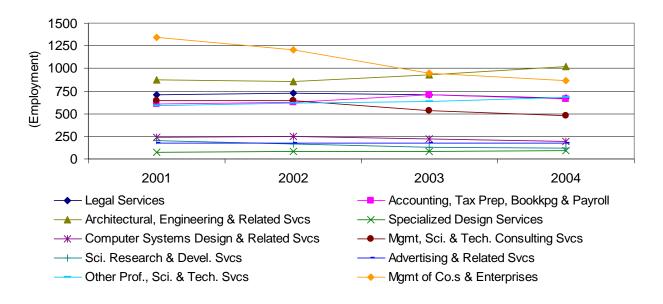
For the period 1990-2002, employment in the Professional, Scientific & Technical Services rose from approximately 3,400 in 1990 to 4,200 in 2002 – an increase of over 23%. During this same period, Management of Companies & Enterprises grew from 1990 to 2000 and then decreased by 2002.

### Professional, Scientific, Technical & Management Services



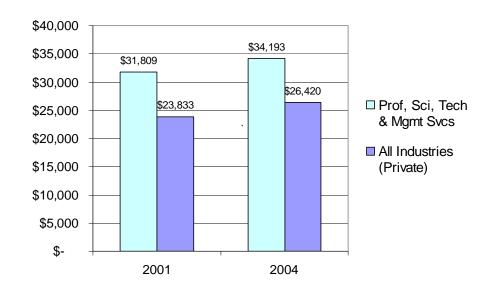
For the period 2001 – 2004, the Professional, Scientific, Technical & Management Services (combined) industry reported job losses of about 500 jobs, or 9%. Within the industry, the sectors providing the most jobs in 2004 were Architectural, Engineering & Related Services (just over 1,000 jobs); Management of Companies & Enterprises (almost 900 jobs); Other Professional, Scientific & Technical Services (almost 700 jobs); Legal Services (almost 700 jobs); Accounting, Tax Preparation, Bookkeeping & Payroll Services (over 650 jobs); and, Management, Scientific & Technical Consulting Services (almost 500 jobs).





The industry's average annual wage for the region in 2004 was \$34,193, up 7.5% from the 2001 average of \$31,809. Although Professional, Scientific, Technical & Management Services reports the highest average wage in the region's economic base, it only provides 3% of the region's economic base jobs. The following chart graphs the changes from 2001 to 2004 and compares the industry's average with the region's overall average wage (all industries).

Prof, Sci., Tech & Mgmt Services Wages



The following table provides information on employment in the Professional, Scientific, Technical & Management Services industry:

Northern Calif	ornia			
Professional, Scientific, Technical	& Managem	ent Serv	rices	
(Thousands of jo	obs)			
	2001	2002	2003	2004
Legal Services	0.7	0.7	0.7	0.7
Accounting, Tax Prep, Bookkpg & Payroll	0.6	0.6	0.7	0.7
Architectural, Engineering & Related Svcs	0.9	0.9	0.9	1.0
Specialized Design Services	0.1	0.1	0.1	0.1
Computer Systems Design & Related Svcs	0.2	0.2	0.2	0.2
Mgmt, Sci. & Tech. Consulting Svcs	0.6	0.6	0.5	0.5
Sci. Research & Devel. Svcs	0.2	0.2	0.1	0.1
Advertising & Related Svcs	0.2	0.2	0.2	0.2
Other Prof., Sci. & Tech. Svcs	0.6	0.6	0.6	0.7
Mgmt of Co.s & Enterprises	1.3	1.2	1.0	0.9

Source: California Employment Development Department

### **ADMINISTRATIVE, SUPPORT & WASTE SERVICES**

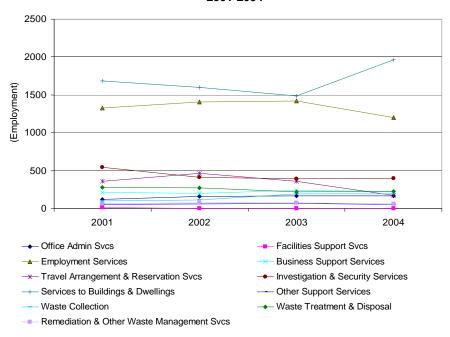
Administrative, Support & Waste Services is another new category introduced by the NAICS coding system. This industry includes the sectors Administrative & Support Services and Waste Management & Remediation Services. The industry provided just over 3% of all economic base jobs, and almost 3% of the region's total jobs.

From 1990-2002, the Administrative, Support & Waste Services industry grew from under 3,000 jobs to almost 5,000 jobs. Industry employment grew out of the previous recession, and peaked at the time of the recent recession. Employment has since declined slightly, with some fluctuation. Overall, the industry reported job losses of about 3% for the period 2001-2004.

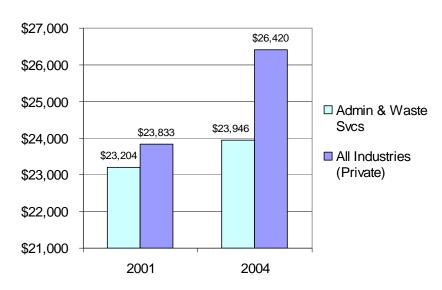
Administrative, Support & Waste Services is made up of eleven sub-sectors, two of which provide the majority of the employment within the industry. These are Services to Buildings & Dwellings and Employment Services. From 1990-2002, these two sub-sectors reported the most overall growth within the industry. Jobs in Services to Buildings & Dwellings peaked in 1998, dropping slowly through 2002. Jobs in Employment Services peaked in 2000, followed by a drop in 2001, then a slight increase in 2002.

For the period 2001-2004, Services to Buildings & Dwellings decreased from 2001 through 2003, but reported a jump in employment in 2004, for an overall increase of almost 300 jobs (close to 17%). Employment Services jobs, on the other hand, reported a slight increase from 2002 through 2003, with a drop in 2004, for an overall decrease of over 100 jobs (almost 9%). Smaller sectors reporting a high percentage of job growth include Waste Collection, up 88%, and Office Administrative Services, up 35%. The following graph shows the changes in employment for all eleven sub-sectors from 2001 through 2004:

# Administrative, Support & Waste Services 2001-2004



The industry's average annual wage for the region in 2004 was \$23,946, up over 3% from the 2001 average of \$23,204. Administrative, Support & Waste Services provides 3% of the region's economic base jobs. The following chart graphs the changes from 2001 to 2004 and compares the industry's average with the region's overall average wage (all industries).



Admin & Waste Services Wages

The following table shows the average annual wages for sub-sectors within the industry:

Admin & Waste Services Sub-sectors	2001	2004
Office Administrative Services	\$ 40,193	\$ 35,023
Facilities Support Services	\$ 16,647	\$ 5,076
Employment Services	\$ 21,851	\$ 21,190
Business Support Services	\$ 16,456	\$ 21,038
Travel Arrangement & Reservation Services	\$ 23,032	\$ 26,665
Investigation & Security Services	\$ 14,749	\$ 19,420
Services to Buildings & Dwellings	\$ 23,619	\$ 23,233
Other Support Services	\$ 32,180	\$ 40,147
Waste Collection	\$ 27,738	\$ 30,423
Waste Treatment & Disposal	\$ 35,535	\$ 33,623
Remediation & Other Waste Mgmt Services	\$ 34,709	\$ 31,759

### **HEALTH SCIENCES & HEALTH SERVICES**

For the previous economic base report, the Health Care & Social Assistance industry was used for studying employment in health care. The industry also included social services. For this and future reports, the Health Sciences & Health Services industry cluster will be used instead of Health Care & Social Assistance.

The Health Sciences & Health Services cluster includes health care services, such as offices of physicians, dentists, other health practitioners and other outpatient care facilities; hospitals; laboratories; home health care; nursing care and other residential care facilities. It also includes community, emergency and other relief services; vocational rehabilitation services; and, death care services. Within health sciences, the cluster includes pharmaceutical and medicine manufacturing; medical equipment and supplies manufacturing; and, scientific research and development (R&D) services.

In 2004, the Health Sciences & Health Services cluster provided 11% of the jobs in the Northern California Region's economic base, and 9% of all jobs in the region.

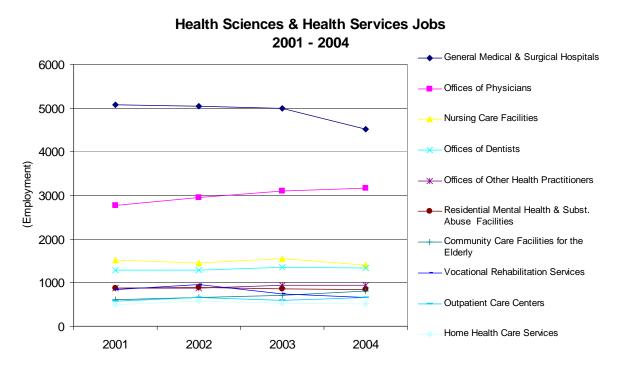
From 1990-2002, the cluster grew 2.2%, from 13,000 jobs in 1990 to 16,900 jobs in 2002, as reported in the study, *Golden Opportunity, Growing Crisis: The Health Sciences and Services Cluster (September 2004)*. The sector with the highest employment was General & Medical Surgical Hospitals (5,100 jobs in 2002), followed by Offices of Physicians (3,000 jobs) and Nursing Care Facilities (nearly 1,500 jobs). Smaller sub-sectors reporting high growth included pharmaceuticals (15.3%) followed by scientific research and development (8.7%). During that same period, health services continued to grow especially in the areas of home health care, outpatient care, and vocational rehabilitation services.

From 2001-2004, Health Sciences & Health Services reported a loss of 0.5%; employment increased from 2001 through 2003, then decreased in 2004. During this period, General & Medical Surgical Hospitals continue to provide the most jobs within the cluster (4,500 jobs), although reporting an overall loss of about 550 jobs, or 11%. At the same time, the second largest sub-sector, Offices of Physicians (3,200 jobs), grew by almost 400 jobs (14%).

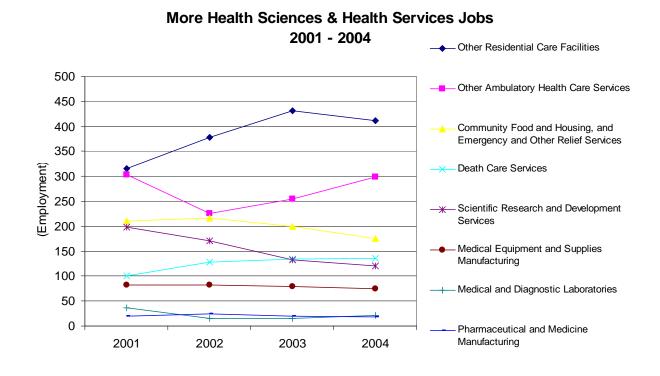
Also during 2001-2004, all three health sciences sub-sectors reported job losses, with Scientific Research & Development losing the most jobs (almost 40%). The three sub-sectors combined only provide a little over 1% of the cluster employment.

During this same period, smaller sub-sectors that reported high growth rates included Death Care Services (up 36%), Community Care Facilities for the Elderly (up 34%), and Other Residential Care Facilities (up 30%).

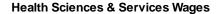
The following graph shows the change in employment from 2001 to 2004 for the top ten subsectors, based on 2004 employment levels:

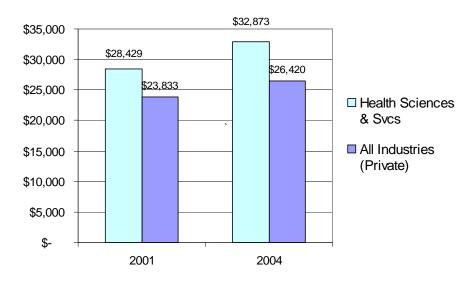


The next graph shows the change in employment from 2001 to 2004 for the remaining subsectors:



The cluster's average annual wage for the region in 2004 was \$32,873, up 15.6% from the 2001 average of \$28,429. Health Sciences & Services provides 11% of the region's economic base jobs. The following chart graphs the changes from 2001 to 2004 and compares the industry's average with the region's overall average wage (all industries).





The following table provides data on cluster employment by sub-sector for 2001-2004:

Northern California				
Health Sciences & Hea	lth <b>S</b> ervice	s		
(Thousands of Jobs)				
	2001	2002	2003	2004
Pharmaceutical & Medicine Manufacturing	0.0*	0.0*	0.0*	0.0*
Medical Equipment & Supplies Manufacturing	0.1	0.1	0.1	0.1
Scientific Research & Development Services	0.2	0.2	0.1	0.1
Offices of Physicians	2.8	3.0	3.1	3.2
Offices of Dentists	1.3	1.3	1.3	1.3
Offices of Other Health Practitioners	0.9	0.9	0.9	0.9
Outpatient Care Centers	0.6	0.7	0.6	0.7
Medical & Diagnostic Laboratories	0.0*	0.0*	0.0*	0.0*
Home Health Care Services	0.5	0.6	0.5	0.5
Other Ambulatory Health Care Services	0.3	0.2	0.3	0.3
General Medical & Surgical Hospitals	5.1	5.1	5.0	4.5
Psychiatric & Substance Abuse Hospitals	0	0	0	0
Specialty (except Psychiatric & Subst. Abuse) Hospitals	0	0	0	0
Nursing Care Facilities	1.5	1.4	1.5	1.4
Residential Mental Health & Subst. Abuse Facilities	0.9	0.9	0.9	0.8
Community Care Facilities for the Elderly	0.6	0.7	0.7	0.8

Other Residential Care Facilities	0.3	0.4	0.4	0.4
Comm. Food, Housing, Emergency & Other Relief Svcs	0.2	0.2	0.2	0.2
Vocational Rehabilitation Services	0.8	0.9	0.7	0.7
Death Care Services	1.0	1.3	1.3	1.4

Source: California Employment Development Department
Data for 1990 – 2002 are presented from the previous economic base report.

\* Employment was reported in 2004; however, jobs were less than 50, which rounded to 0.0 thousands.

### **ENTERTAINMENT & TOURISM**

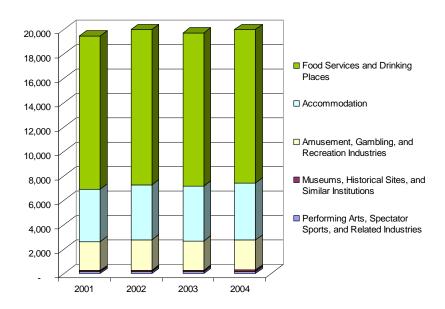
The Entertainment & Tourism Industry combines Accommodation & Food Services with Arts, Entertainment & Recreation. For the previous economic base report, these two sectors were analyzed separately.

Entertainment & Tourism provides 14% of the Northern California Region's economic base jobs, and almost 12% of all jobs in the region.

From 1990-2002, both Accommodation & Food Services and Arts, Entertainment & Recreation reported job growth. Accommodation & Food Services grew from about 13,600 jobs in 1990 to about 17,600 jobs in 2002. For the same period, Arts, Entertainment & Recreation grew from about 1,500 in 1990 to 2,800 in 2002. This would indicate that the combined Entertainment & Tourism Industry grew from about 15,000 to over 20,000 jobs between 1990 and 2002. For the period 2001-2004, the Entertainment & Tourism Industry grew by almost 800 jobs, or 4%.

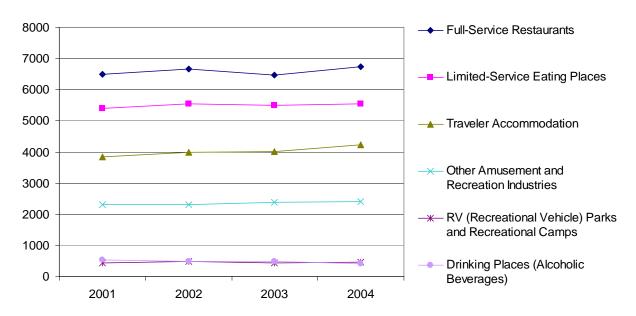
Within Entertainment & Tourism, the sector providing the most jobs in 2004 was Food Services & Drinking Places with over 63% of the industry's employment (led by Full-Service Restaurants and Limited-Service Eating Places). The second largest sector was Accommodation, with over 23% of the industry's jobs (led by Traveler Accommodation). The third largest was Amusement, Gambling & Recreation, with 12% of the industry's jobs (led by Other Amusement & Recreation Industries).

### Entertainment & Tourism Industry Major Sector Employment



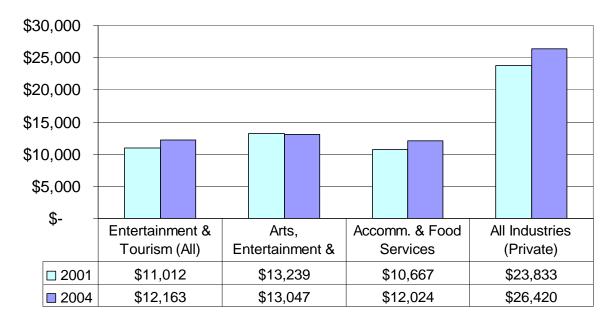
The following graph shows employment within the six sub-sectors that provide the most jobs:

# Entertainment & Tourism Jobs Top Six Sub-sectors



The industry's average annual wage for the region in 2004 was \$12,163, up over 10% from the 2001 average of \$11,012. Entertainment & Tourism provides 14% of the region's economic base jobs. Within the industry, the Arts, Entertainment & Recreation sector reported the highest average wage. The following chart graphs the changes from 2001 to 2004 and compares the industry's average with the region's overall average wage (all industries).

### **Entertainment & Tourism Wages**



The following table provides data on all sub-sectors in the industry, listed in NAICS code order:

Northern California					
Entertainment & Tourism					
(Thousands)					
	1990	1994	2000	2002	2004
Performing Arts Companies	0.2	0.0	0.1	0.1	0.1
Spectator Sports	0.0	0.1	0.0	0.0	0.0*
Promoters of Performing Arts, Sports, & Similar Events	0.0	0.0	0.0	0.0	0.0*
Agents & Managers for Public Figures	0.0	0.0	0.0	0.0	0.0*
Independent Artists, Writers, & Performers	0.0	0.0	0.0	0.0	0.1
Museums, Historical Sites, & Similar Institutions	0.0	0.1	0.1	0.1	0.1
Amusement Parks and Arcades	0.0	0.0	0.0	0.0	0.0*
Gambling Industries	0.0	0.1	8.0	0.2	0.0*
Other Amusement & Recreation Industries	1.3	1.8	2.1	2.4	2.4
Traveler Accommodation	3.3	3.7	3.2	4.0	4.2
RV (Recreational Vehicle) Parks & Rec. Camps	0.3	0.4	0.4	0.5	0.5
Rooming and Boarding Houses	0.0	0.0	0.0	0.0	0.0*
Full-Service Restaurants	5.0	5.5	6.5	6.7	6.7
Limited-Service Eating Places	4.1	5.0	5.3	5.6	5.6
Special Food Services	0.2	0.5	0.1	0.1	0.1
Drinking Places (Alcoholic Beverages)	0.7	0.7	0.6	0.5	0.4

Source: California Employment Development Department

Data for 1990 – 2002 are presented from the previous economic base report.

<sup>\*</sup> Employment was reported in 2004; however, jobs were less than 50, which rounded to 0.0 thousands.

### **OTHER SERVICES (Except Public Administration)**

The Other Services industry includes a variety of services, such as automotive repair and maintenance, religious and civic organizations, personal care services and professional organizations.

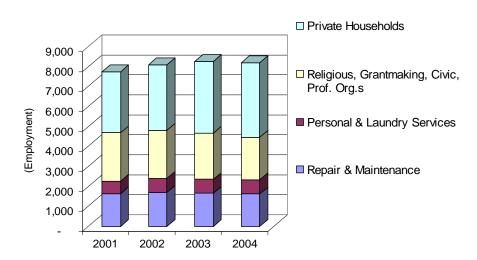
In 2004, Other Services provided 5.6% of the Northern California Region's economic base jobs, and almost 5% of all jobs in the region.

From 1990 to 2002, Other Services employment grew by 25%, from about 4,000 jobs to over 5,000 jobs. Job growth within the industry was concentrated in five sub-sectors. This growth was led by Automotive Repair & Maintenance, followed closely by Social Advocacy Organizations, then Religious Organizations, Professional & Similar Organizations and Grantmaking & Giving Services.

During the period 2001-2004, Other Services employment grew by almost 6%. Those sectors reporting the most new jobs included Private Households (up almost 700 jobs) and Personal & Laundry Services (up over 100 jobs).

The following graph shows employment change for the four main sectors within the industry:

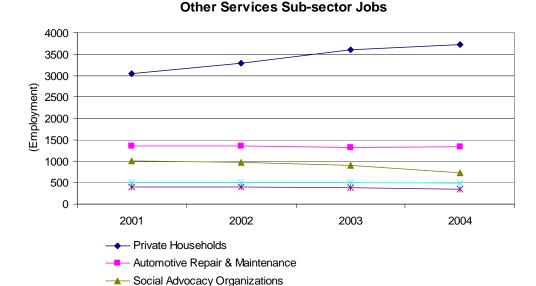
### Other Services Jobs



The top five sub-sectors providing the most jobs in 2004 include Private Households (over 3,700 jobs); Automotive Repair & Maintenance (1,300 jobs); Social Advocacy Organizations (700 jobs); Business, Professional, Labor, Political & Similar Organizations (almost 500 jobs); and, Grantmaking & Giving Services (over 350 jobs). Of these, only Private Households reported job growth during 2001-2004.

The following graph shows employment change for these five sub-sectors:

- Grantmaking and Giving Services

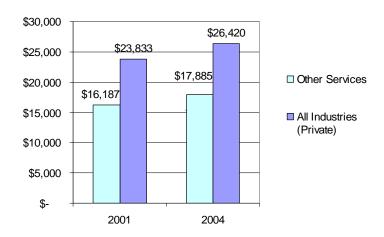


Small sub-sectors reporting high percentage of growth, although small in job numbers, included Other Personal Services (up 109%), Electronic & Precision Equipment Repair (up 48%) and Death Services (up 36%). Those smaller sub-sectors that reported the greatest percentage of job losses included Social Advocacy Organizations, down 28%; and, Commercial & Industrial Machinery & Equipment Repair (except Automotive), down 26%.

Business, Professional, Labor, Political, and Similar Organizations

The industry's average annual wage for the region in 2004 was \$17,885, up 10.5% from the 2001 average of \$16,187. Other Services provides 6% of the region's economic base jobs. The following chart graphs the changes from 2001 to 2004 and compares the industry's average with the region's overall average wage (all industries).





The following table provides data on all sub-sectors in the industry, listed in NAICS code order:

Northern Califor Other Services					
(Thousands)					
	1990	1994	2000	2002	2004
Automotive Repair & Maintenance	0.9	1.0	1.2	1.4	1.3
Electronic & Precision Equipment Repair & Maintenance	0.0	0.1	0.1	0.1	0.1
Commercial & Industrial Machinery & Equipment	0.2	0.1	0.2	0.2	0.1
Personal & Household Goods Repair & Maintenance	0.1	0.1	0.0	0.1	0.1
Personal Care Services	0.3	0.3	0.2	0.3	0.3
Death Care Services	0.1	0.2	0.1	0.1	0.1
Drycleaning & Laundry Services	0.3	0.3	0.2	0.2	0.2
Other Personal Services	0.1	0.1	0.0	0.1	0.1
Religious Organizations**	0.5	0.6	0.7	0.8	0.2
Grantmaking & Giving Services	0.2	0.3	0.3	0.4	0.4
Social Advocacy Organizations	0.4	0.6	0.9	1.0	0.7
Civic & Social Organizations	0.3	0.3	0.3	0.3	0.3
Business, Professional, Labor, Political, & Similar Org.s	0.4	0.4	0.4	0.5	0.5
Private Households	_	_	_	3.3	3.7

Source: California Employment Development Department;

Data for 1990 – 2002 are presented from the previous economic base report, except for Private Households. Totals from the previous report were not available; using current data for the 2002 total.

<sup>\*</sup>Employment was reported in 2004; however, jobs were less than 50, which rounded to 0.0 thousands.

<sup>\*\*</sup> The current data reports significantly different job totals for this sub-sector in 2002.

### **ALL GOVERNMENT**

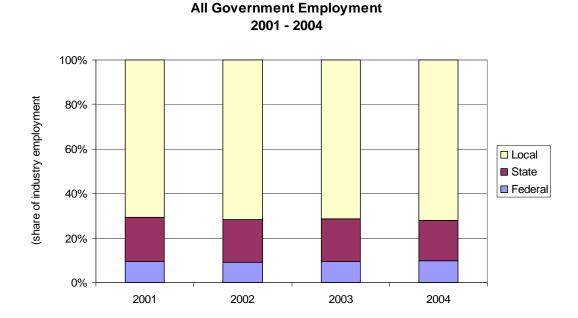
All Government includes federal, state and local government jobs. Jobs in public education are reported in the state and local government sectors. Government jobs also include defense (reported at the federal level), law enforcement, firefighting and public services.

All Government continues to provide the greatest number of jobs for the Northern California Region, and continues to report job growth. From 1990-2002, All Government jobs grew from 39,200 to almost 50,000 jobs<sup>4</sup>. This growth continued into 2003, reaching over 50,000, but then declined slightly in 2004, to about 49,300 jobs.

During the 2001-2004 period, All Government increased by almost 1,100 jobs. Local and Federal Government employment grew during this period, while State Government employment decreased.

Local Government jobs, including education, continued to provide the greatest number of jobs for the region. During the 2001-2004 period, Local Government added almost 1,500 jobs- the most of any Government sector and of any industry in the region. At the same time, federal jobs increased by almost 4%; however, State Government jobs decreased by over 6% – a loss of almost 600 jobs. During 2001-2004, all three sectors' employment was highest in 2003, with a decreases reported in 2004.

The following chart shows each sector's share of the industry's total employment:

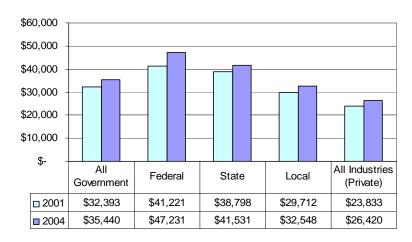


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<sup>&</sup>lt;sup>4</sup> Due to the change in data sources from the economic base reports covering 1990-2002 to the current report covering 2001-2004, the number of jobs reported for 2001 and 2002 may vary. In this case, the All Government jobs were counted at 49,700 in the earlier base report, while the current data reports closer to 50,000 jobs.

All Government average annual wages include the wages for a broad spectrum of jobs, including elected officials and executive branch, judicial, defense, law enforcement, firefighting, education and other public administration jobs. The industry's average annual wage for the region in 2004 was \$35,440, up over 9% from the 2001 average of \$32,393. Within All Government, the average annual wage for Federal Government was \$47,231; the average for State Government was \$41,531; and, the average annual wage for Local Government was \$32,548. The following chart graphs the changes from 2001 to 2004 and compares the industry's average with the region's overall average wage (all industries).





The following table shows employment for each level of government:

Northern C All Gover				
(Thousands	of Jobs)			
	1990	2002*	2003	2004
Local Government (includes education)	25.9	35.8	36.0	35.5
State Government (includes education)	7.3	9.6	9.7	9.0
Federal Government (includes defense)	6.0	4.6	4.8	4.7

Source: CA Employment Development Department

<sup>\*</sup> The current data, used here, shows a slightly higher number for 2002 employment than found in the earlier economic base report.

# **APPENDIX A: Definition of Industry Sectors and Clusters by NAICS Codes**

The following lists the major industries and clusters included in the economic base reports, and defines them by NAICS code and classification. Most of these are defined at the three-digit and/or four-digit NAICS code levels, but some are defined at the five-digit and/or six-digit NAICS code levels.

### THE FOOD CHAIN

### **Distribution**

4244	Grocery and Related Product Wholesalers
4245	Farm Product Raw Material Merchant Wholesalers
4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers
42491	Farm Supplies Merchant Wholesalers
4452	Specialty Food Stores
49313	Farm Product Warehousing and Storage

### **Processing**

3111	Animal Food Manufacturing
3112	Grain and Oilseed Milling
3113	Sugar and Confectionery Product Manufacturing
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing
3115	Dairy Product Manufacturing
3116	Animal Slaughtering and Processing
3117	Seafood Product Preparation and Packaging
3118	Bakeries and Tortilla Manufacturing
3119	Other Food Manufacturing
322215	Nonfolding Sanitary Food Container Manufacturing
32616	Plastics Bottle Manufacturing
327213	Glass Container Manufacturing
332115	Crown and Closure Manufacturing
332431	Metal Can Manufacturing
31211	Soft Drink and Ice Manufacturing
31212	Breweries
31213	Wineries
31214	Distilleries

### **Production**

Ш	Oilseed and Grain Farming
1113	Fruit and Tree Nut Farming
11141	Food Crops Grown Under Cover
11193	Sugarcane Farming
11194	Hay Farming
111991	Sugar Beet Farming
111992	Peanut Farming

1112	Vegetable and Melon Farming
111998	All Other Miscellaneous Crop Farming
1121	Cattle Ranching and Farming
1122	Hog and Pig Farming
1123	Poultry and Egg Production
1124	Sheep and Goat Farming
1125	Animal Aquaculture
1129	Other Animal Production
1141	Fishing
1142	Hunting and Trapping

# Support

1151	Support Activities for Crop Production
1152	Support Activities for Animal Production
22131	Water Supply and Irrigation Systems
23711	Water and Sewer Line and Related Structures Construction
32192	Wood Container and Pallet Manufacturing
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing
33311	Agricultural Implement Manufacturing
333294	Food Product Machinery Manufacturing
42382	Farm and Garden Machinery and Equipment Merchant Wholesalers
54194	Veterinary Services

# CONSTRUCTION

236	Construction of Buildings
2361	Residential Building Construction
2362	Nonresidential Building Construction
237	Heavy and Civil Engineering Construction
2371	Utility System Construction
2372	Land Subdivision
2373	Highway, Street, and Bridge Construction
2379	Other Heavy and Civil Engineering Construction
238	Specialty Trade Contractors
2381	Foundation, Structure, and Building Exterior Contractors
2382	Building Equipment Contractors
2383	Building Finishing Contractors
2389	Other Specialty Trade Contractors

# **MANUFACTURING VALUE CHAIN**

# Design

5413	Architectural, Engineering, and Related Services
5414	Specialized Design Services
5416	Management, Scientific, and Technical Consulting Services
5419	Other Professional Scientific and Technical Services

# **Production**

3111	Animal Food Manufacturing
3112	Grain and Oilseed Milling
3113	Sugar and Confectionery Product Manufacturing
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing
3115	Dairy Product Manufacturing
3116	Animal Slaughtering and Processing
3117	Seafood Product Preparation and Packaging
3118	Bakeries and Tortilla Manufacturing
3119	Other Food Manufacturing
3121	Beverage Manufacturing
3122	Tobacco Manufacturing
3131	Fiber, Yarn, and Thread Mills
3132	Fabric Mills
3133	Textile and Fabric Finishing and Fabric Coating Mills
3141	Textile Furnishings Mills
3149	Other Textile Product Mills
3151	Apparel Knitting Mills
3152	Cut and Sew Apparel Manufacturing
3159	Apparel Accessories and Other Apparel Manufacturing
3161	Leather and Hide Tanning and Finishing
3162	Footwear Manufacturing
3169	Other Leather and Allied Product Manufacturing
3211	Sawmills and Wood Preservation
3212	Veneer, Plywood, and Engineered Wood Product Manufacturing
3219	Other Wood Product Manufacturing
3221	Pulp, Paper, and Paperboard Mills
3222	Converted Paper Product Manufacturing
3231	Printing and Related Support Activities
3241	Petroleum and Coal Products Manufacturing
3251	Basic Chemical Manufacturing
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing
3255	Paint, Coating, and Adhesive Manufacturing
3256	Soap, Cleaning Compound, and Toilet Preparation Manufacturing
3259	Other Chemical Product and Preparation Manufacturing
3261	Plastics Product Manufacturing
3262	Rubber Product Manufacturing
3271	Clay Product and Refractory Manufacturing
3272	Glass and Glass Product Manufacturing
3273	Cement and Concrete Product Manufacturing
3274	Lime and Gypsum Product Manufacturing
3279	Other Nonmetallic Mineral Product Manufacturing
3311	Iron and Steel Mills and Ferroalloy Manufacturing
3312	Steel Product Manufacturing from Purchased Steel
3313	Alumina and Aluminum Production and Processing
3314	Nonferrous Metal (except Aluminum) Production and Processing
3315	Foundries
3321	Forging and Stamping

3322	Cutlery and Handtool Manufacturing
3323	Architectural and Structural Metals Manufacturing
3324	Boiler, Tank, and Shipping Container Manufacturing
3325	Hardware Manufacturing
3326	Spring and Wire Product Manufacturing
3327	Machine Shops-Turned Product- and Screw, Nut, and Bolt Manufacturing
3328	Coating, Engraving, Heat Treating, and Allied Activities
3329	Other Fabricated Metal Product Manufacturing
3331	Agriculture, Construction, and Mining Machinery Manufacturing
3332	Industrial Machinery Manufacturing
3333	Commercial and Service Industry Machinery Manufacturing
3334	Ventilation, Heating, Air-Conditioning and Commercial Refrigeration Equipment Manufacturing
3335	Metalworking Machinery Manufacturing
3336	Engine, Turbine, and Power Transmission Equipment Manufacturing
3339	Other General Purpose Machinery Manufacturing
3341	Computer and Peripheral Equipment Manufacturing
3342	Communications Equipment Manufacturing
3343	Audio and Video Equipment Manufacturing
3344	Semiconductor and Other Electronic Component Manufacturing
3345	Navigational, Measuring, Electromedical, and Control Instruments Manufacturing
3346	Manufacturing and Reproducing Magnetic and Optical Media
3351	Electric Lighting Equipment Manufacturing
3352	Household Appliance Manufacturing
3353	Electrical Equipment Manufacturing
3359	Other Electrical Equipment and Component Manufacturing
3361	Motor Vehicle Manufacturing
3362	Motor Vehicle Body and Trailer Manufacturing
3363	Motor Vehicle Parts Manufacturing
3364	Aerospace Product and Parts Manufacturing
3371	Household and Institutional Furniture and Kitchen Cabinet Manufacturing
3372	Office Furniture (including Fixtures) Manufacturing
3379	Other Furniture Related Product Manufacturing
Logistics	
4811	Scheduled Air Transportation
4812	Nonscheduled Air Transportation
4821	Rail Transportation
483 I	Deep Sea, Coastal, and Great Lakes Water Transportation
4832	Inland Water Transportation
4841	General Freight Trucking
4842	Specialized Freight Trucking
4861	Pipeline Transportation of Crude Oil
4862	Pipeline Transportation of Natural Gas

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Other Pipeline Transportation

Support Activities for Air Transportation

Support Activities for Rail Transportation

Support Activities for Water Transportation

Support Activities for Road Transportation Freight Transportation Arrangement

4889	Other Support Activities for Transportation
4911	Postal Service
4921	Couriers
4922	Local Messengers and Local Delivery
4931	Warehousing and Storage

# WHOLESALE TRADE

423	Merchant Wholesalers, Durable Goods
424	Merchant Wholesalers, Nondurable Goods
425	Wholesale Electronic Markets & Agents & Brokers

# **RETAIL TRADE**

441	Motor Vehicle and Parts Dealers
4411	Automobile Dealers
4412	Other Motor Vehicle Dealers
4413	Automotive Parts, Accessories, and Tire Stores
442	Furniture and Home Furnishings Stores
4421	Furniture Stores
4422	Home Furnishings Stores
443	Electronics and Appliance Stores
443 I	Electronics and Appliance Stores
444	Building Material and Garden Equipment and Supplies Dealers
4441	Building Material and Supplies Dealers
4442	Lawn and Garden Equipment and Supplies Stores
445	Food and Beverage Stores
445 I	Grocery Stores
4452	Specialty Food Stores
4453	Beer, Wine, and Liquor Stores
446	Health and Personal Care Stores
4461	Health and Personal Care Stores
447	Gasoline Stations
447 I	Gasoline Stations
448	Clothing and Clothing Accessories Stores
4481	Clothing Stores
4482	Shoe Stores
4483	Jewelry, Luggage, and Leather Goods Stores
45 I	Sporting Goods, Hobby, Book, and Music Stores
4511	Sporting Goods, Hobby, and Musical Instrument Stores
4512	Book, Periodical, and Music Stores
452	General Merchandise Stores
4521	Department Stores
4529	Other General Merchandise Stores
453	Miscellaneous Store Retailers
453 I	Florists
4532	Office Supplies, Stationery, and Gift Stores
4533	Used Merchandise Stores
4539	Other Miscellaneous Store Retailers
454	Nonstore Retailers

4541	Electronic Shopping and Mail-Order Houses
4542	Vending Machine Operators
4543	Direct Selling Establishments

# **BASIC INFORMATION SERVICES**

511	Publishing Industries (except Internet)
515	Broadcasting (except Internet)
516	Internet Publishing and Broadcasting
517	Telecommunications
518	Internet Service Providers, Web Search Portals, and Data Processing Services
519	Other Information Services
5111	Newspaper, Periodical, Book, and Directory Publishers
5112	Software Publishers
5151	Radio and Television Broadcasting
5152	Cable and Other Subscription Programming
5161	Internet Publishing and Broadcasting
5171	Wired Telecommunications Carriers
5172	Wireless Telecommunications Carriers (except Satellite)
5173	Telecommunications Resellers
5174	Satellite Telecommunications
5175	Cable and Other Program Distribution
5179	Other Telecommunications
5181	Internet Service Providers and Web Search Portals
5182	Data Processing, Hosting, and Related Services
5191	Other Information Services

# **REAL ESTATE & RENTAL & LEASING**

531	Real Estate
5311	Lessors of Real Estate
5312	Offices of Real Estate Agents and Brokers
5313	Activities Related to Real Estate
532	Rental and Leasing Services
5321	Automotive Equipment Rental and Leasing
5322	Consumer Goods Rental
5323	General Rental Centers
5324	Commercial and Industrial Machinery and Equipment Rental and Leasing
533	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)
5331	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)

# PROFESSIONAL, SCIENTIFIC, TECHNICAL & MANAGEMENT SERVICES

541	Professional, Scientific, and Technical Services
5411	Legal Services
5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services
5413	Architectural, Engineering, and Related Services
5414	Specialized Design Services

5415	Computer Systems Design and Related Services
5416	Management, Scientific, and Technical Consulting Services
5417	Scientific Research and Development Services
5418	Advertising and Related Services
5419	Other Professional, Scientific, and Technical Services
55 I	Management of Companies and Enterprises
5511	Management of Companies and Enterprises

# **ADMINISTRATIVE & SUPPORT & WASTE SERVICES**

561	Administrative and Support Services
5611	Office Administrative Services
5612	Facilities Support Services
5613	Employment Services
5614	Business Support Services
5615	Travel Arrangement and Reservation Services
5616	Investigation and Security Services
5617	Services to Buildings and Dwellings
5619	Other Support Services
562	Waste Management and Remediation Services
5621	Waste Collection
5622	Waste Treatment and Disposal
5629	Remediation and Other Waste Management Services

# **HEALTH SCIENCES & SERVICES**

3254	Pharmaceutical and Medicine Manufacturing
3391	Medical Equipment and Supplies Manufacturing
5417	Scientific Research and Development Services
6211	Offices of Physicians
6212	Offices of Dentists
6213	Offices of Other Health Practitioners
6214	Outpatient Care Centers
6215	Medical and Diagnostic Laboratories
6216	Home Health Care Services
6219	Other Ambulatory Health Care Services
6221	General Medical and Surgical Hospitals
6222	Psychiatric and Substance Abuse Hospitals
6223	Specialty (except Psychiatric and Substance Abuse) Hospitals
6231	Nursing Care Facilities
6232	Residential Mental Retardation, Mental Health and Substance Abuse Facilities
6233	Community Care Facilities for the Elderly
6239	Other Residential Care Facilities
6242	Community Food and Housing, and Emergency and Other Relief Services
6243	Vocational Rehabilitation Services
8122	Death Care Services

### **ENTERTAINMENT & TOURISM - URBAN REGIONS**

512	Motion Picture and Sound Recording Industries
711	Performing Arts, Spectator Sports, and Related Industries
712	Museums, Historical Sites, and Similar Institutions
713	Amusement, Gambling, and Recreation Industries
<b>72</b> I	Accommodation

### **ENTERTAINMENT & TOURISM - RURAL REGIONS**

711	Performing Arts, Spectator Sports, and Related Industries
712	Museums, Historical Sites, and Similar Institutions
713	Amusement, Gambling, and Recreation Industries
721	Accommodation
722	Food Services and Drinking Places

# OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)

811	Repair and Maintenance
8111	Automotive Repair and Maintenance
8112	Electronic and Precision Equipment Repair and Maintenance
8113	Commercial and Industrial Machinery and Equipment
8114	Personal and Household Goods Repair and Maintenance
812	Personal and Laundry Services
8121	Personal Care Services
8122	Death Care Services
8123	Drycleaning and Laundry Services
8129	Other Personal Services
813	Religious, Grantmaking, Civic, Professional, and Similar Organizations
8131	Religious Organizations
8132	Grantmaking and Giving Services
8133	Social Advocacy Organizations
8134	Civic and Social Organizations
8139	Business, Professional, Labor, Political, and Similar Organizations
814	Private Households
8141	Private Households

### **ALL GOVERNMENT**

Federal Government

Department of Defense

Other Federal Government

State Government

State Government Education

Other State Government

Local Government

Local Government Education

Other Local Government



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